

# The SEARCA DIARY



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FOR GRADUATE STUDY AND RESEARCH IN AGRICULTURE

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## LEGACY

The gains or losses of future generations are hinged on today's actions concerning climate change.

Photo by Roldan Aquino

## Long-term plans needed for climate change adaptation

“We cannot deal with climate change—even with rural development or any form of development—with a six-year medium-term plan.”

This was emphatically asserted by Dr. Segfredo R. Serrano, Philippine Agriculture Undersecretary for Policy, Planning, Research and Development and Regulations, in his keynote address at the *Policy Enabling Environment and Climate Change Adaptation in Inclusive and Sustainable Agricultural and Rural Development (ISARD): Second Knowledge Sharing Writeshop* hosted by SEARCA on 13-15 April 2016.

Dr. Serrano cited the need for long-term and sustainable plans for climate change adaptation (CCA) in the face of the increasingly adverse effects of the global phenomenon on farming communities.

CCA is defined by the Intergovernmental Panel on Climate Change (IPCC) as “adjustments in ecological, social, or economic systems in response to actual or expected climatic stimuli and their effects or impacts. It refers to changes in processes, practices, and structures to moderate potential damages or to benefit from opportunities associated with climate change.”

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The writeshop had participants from Cambodia, Indonesia, the Philippines, Thailand, and Vietnam who hold key positions in decision-making, policy formulation, research, and other relevant CCA sectors in their countries.

Dr. Gil C. Saguiguit, Jr., SEARCA Director, opened the writeshop and stressed the urgent need to apply science on CCA policy and plans as well as the integrate CCA best practices into programs and actions to improve climate change resiliency among the sectors on which people depend for their food and livelihood.

As an important step to come up with a collective region-wide action plan to reduce the potential damage of climate change in the ASEAN region, key players and experts on climate change, environment, and agriculture from various parts of the region gathered in the writeshop to synthesize the experiences and lessons learned by ASEAN countries on mainstreaming CCA in their national development plans and strategies.

The Fifth Assessment Report of the IPCC (AR5) provided more comprehensive science-based facts and evidences that climate change is largely induced by human-related activities.

The IPCC AR5 further revealed that climate-related disasters are among the main drivers of food insecurity, both in the aftermath of a disaster and in the long run.

Drought is one major driver of food insecurity and contributes to a negative impact on nutrition.

Floods and tropical storms, on the other hand, affect food security by destroying livelihood assets.

According to the IPCC, effective adaptation implementation depends on policies and cooperation at all scales and it can be enhanced through integrated responses that link mitigation and adaptation with other societal objectives.



Dr. Gil C. Saguiguit, Jr.



Dr. Segfredo R. Serrano

Countries in Southeast Asia are involved in various degrees of mainstreaming or integrating CCA into their national development plans and strategies, which are translated at various hierarchical levels. These are reflected in their National Adaptation Programs of Action (NAPAs), Strategic Program for Climate Resilience (SPCRs), and National Development Plans.

The formulation of these various plans and how effectively they are translated into the national development plans and implemented at various hierarchical levels is of extreme interest in terms of sharing knowledge on what worked and what needs to be improved to increase the effectiveness of the policy-enabling environment for CCA.

The writeshop shared knowledge and experiences for the formulation and implementation of top-level policy on CCA by various countries in SEA. It also identified opportunities and modalities to foster collaboration and networking among CCA stakeholders and consolidate information on the process of creating a policy-enabling environment.

The participants came up with possible indicators to assess the effectiveness of a policy environment that can promote CCA at various hierarchical levels.

Lessons learned on the processes in formulating an effective policy-enabling environment for promoting CCA through the case stories presented by the participants will be consolidated and published to serve as guide for policy- and decision-makers, researchers, and development practitioners on their work on CCA.

The writeshop was jointly organized by SEARCA and the Oscar M. Lopez Center for Climate Change Adaptation and Disaster Risk Management Foundation, Inc. (OML Center) (KAGimutao)



Dr. Percy E. Sajise (center), renowned ecologist and SEARCA Senior Fellow, observes participants in a writeshop exercise. He served as the writeshop's technical coordinator.

### THE SEARCA DIARY

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## UNICEF gets SEARCA support

SEARCA has pledged to support the United Nations Children's Fund (UNICEF) with an annual financial contribution to its program on severe acute malnutrition management.

UNICEF has worked for 70 years to improve the lives of children and their families, particularly the most disadvantaged. It also lobbies and partners with leaders and policymakers for children's rights, which it states "begin with safe shelter,

nutrition, protection from disaster and conflict..., clean water and sanitation, health care and education."

The UNICEF program provides ready-to-use therapeutic food (RUTF) to malnourished children affected by conflicts in Mindanao. Although humanitarian efforts to help indigent children in conflict areas in Mindanao is not a priority under SEARCA's mandate, it is aligned with the Center's goal of ensuring food and nutrition security for all. As such, SEARCA backs the program under its corporate social responsibility (CSR) initiative and will pursue collaborative activities with UNICEF on areas of common interest. (LLDDomingo)

## IFAD enlists SEARCA as development partner

SEARCA and the Rome-based International Fund for Agricultural Development (IFAD) have been discussing several projects intended to benefit the Southeast Asia and Asia-Pacific regions in efforts to address the overriding problems of poverty and food security. IFAD is a specialized agency of the United Nations dedicated to eradicating poverty and hunger in rural areas.

The collaborative projects in the pipeline will focus on rural advisory services for farmers and farming communities, food policy research for the Association of Southeast Asian Nations (ASEAN); pathways, policy, and development outcomes of rural transformation in the Philippines, Vietnam, and China; and most significantly, the roll out of major programs and initiatives of IFAD to support economic growth in ASEAN Member States.

According to Dr. Saguiguit, “the impending increase of collaborative projects and programs not only with IFAD, but also with other major international development organizations, is a breakthrough for SEARCA.”



Dr. Gil C. Saguiguit, Jr., SEARCA Director, flanked by Mr. Omer Zafar, IFAD Country Programme Manager, Asia Pacific Region (APR), on his left and Mr. Tawfiq El-Zabri, IFAD APR Programme Officer, on his right during the IFAD officials' visit to the Center.

The joint initiatives will bolster the Center's efforts to promote inclusive and sustainable agricultural development (ISARD) in the Philippines and the ASEAN region.

“We are pleased and grateful that our partners and donors have placed their trust in us. It shows

that SEARCA is fast becoming known as a major development partner in this part of the world. This comes at the cusp of the Center's 50th Anniversary celebration representing five decades of outstanding agricultural and rural development work in the region and beyond,” Dr. Saguiguit said. (LLDDomingo)

## ICRAF seeks collaboration in greening ASEAN economic corridors

LOS BAÑOS, Philippines—The possibility of working together on an integrated research-in-development program on greening the ASEAN economic corridors was broached to SEARCA by officials of the World Agroforestry Centre (ICRAF).

Dr. Ingrid Öborn, Regional Coordinator; Dr. Rodel D. Lasco, Country Coordinator and Senior Natural Resource Management Scientist; and Mr. Robert Finlayson, Regional Communications Specialist, all of ICRAF, visited SEARCA on 21 June 2016. They met with Dr. Gil C. Saguiguit, Jr., SEARCA Director, and SEARCA program and unit heads and research staff.

ICRAF is a CGIAR Consortium Research Centre that generates science-based knowledge about the diverse benefits (both direct and indirect) of agroforestry or trees in farming systems and agricultural landscapes, and disseminates this knowledge to develop policy options and promote practices that improve livelihoods and benefit the environment.

ICRAF and SEARCA share a common interest in helping ASEAN Member States (AMS) realize green economic growth by addressing the ecological impact of the ASEAN Economic Community (AEC) infrastructure investments.



ICRAF officials led by Dr. Ingrid Öborn (second from right) with Dr. Rodel D. Lasco (rightmost) and Mr. Robert Finlayson (second from left) were briefed by Dr. Gil C. Saguiguit, Jr. (leftmost) and Dr. Bessie M. Burgos, SEARCA Program Head for Research and Development (center) during their visit to SEARCA on 21 June 2016.

They are looking to collaborate in developing and generating support for the proposed program titled *Greening the ASEAN Economic Corridors: Mitigating risks and securing gains for food security, environmental services, and social cohesion*.

The program is set to evaluate the benefits and trade-offs of ASEAN's economic corridors for biodiversity, food security, agriculture, environmental services, and social cohesion in the AMS that are at high risk from targeted infrastructure and economic investment. Through the proposed program, practical, inclusive, and

scalable options for achieving sustainable and productive landscapes will be developed.

During the meeting, the ICRAF officials were apprised on SEARCA's current programs and activities. They were also briefed on the ASEAN Social Forestry Network (ASFN) Strategic Response Fund (ASRF) that SEARCA is implementing for the ASEAN-Swiss Partnership on Social Forestry and Climate Change (ASFCC) Phase 3 with funding from the Swiss Agency for Development and Cooperation (SDC). (Report from EADDecena)

## SEARCA benchmarks agri R&D in Phl

The Philippine Department of Agriculture-Bureau of Agricultural Research (DA-BAR) has commissioned SEARCA to implement a project titled *Strengthening Agricultural Research and Development towards ASEAN Integration*.

The project aims to benchmark agricultural research and development (R&D) in the country vis-à-vis that in the ASEAN region. It will also assess partnership in agricultural R&D among government agencies and state universities and colleges (SUCs) and recommend ways to strengthen capabilities of staff as well as draw policy implications.

Under the project, SEARCA conducted a series of focus group discussions (FGD) in Regions 6, 7, and 8 in May 2016.

There were 52 FGD participants who were representatives of Western Visayas Agricultural Research Center (WESVIARC), Capiz State University (CapSU), University of the Philippines Visayas (UPV), all in Region 6; Cebu Technological University (CTU) in Region 7; and Eastern Samar State University (ESSU) and Visayas State University (VSU) in Region 8, and DA-Regional Field Offices (RFO) 7 and 8.

The FGDs revealed that WESVIARC and CapSU research were mainly on natural sciences,



Dr. Jose Nestor Garcia (bottom right), project training needs assessment and capacity building specialist, conducts a focus group discussion with DA-RFO 8 officers.

while that of UPV were on physical/natural and social sciences with emphasis on fisheries and aquaculture. WESVIARC focuses on mango, banana, rice, corn, ampalaya, soybean, and mungbean while CapSU concentrates on fisheries and irrigation. Research in DA-RFO 7 and CTU are primarily on physical/natural sciences. Both institutions rated the value of collaboration to the success of the research as very significant.

Meanwhile, the Region 8 institutions were found to approach research direction and goal setting in different ways. DA-RFO 8 sets its own research direction and goals, while VSU encourages collaborating agencies to contribute even as its

research direction and goals remain anchored on its strategic plan. On the other hand, ESSU allows collaborators to identify direction and goals.

In terms of leadership of research projects, DA-RFO 8 leads projects under the national program but its partner institutions usually leads collaborative projects.

Similarly, the funding agency provides the leadership in collaborative projects with ESSU, while VSU enters into an agreement with its partners in identifying the lead institution in a collaborative research project. (LAPeña)

## Drones produced for field monitoring

MANILA, Philippines—Two units of unmanned aerial vehicles (UAVs) were turned over by SEARCA and the University of the Philippines Los Baños Foundation Inc. (UPLBFI) to the Philippine Department of Agriculture System Wide Climate Change Office (DA-SWCCO) on 9 June 2016.

The UAVs were handed over to DA-SWCCO during the presentation of the draft final report of the DA-funded project titled *Strengthening Implementation of Adaptation and Mitigation Initiatives in Agriculture (AMIA)*.

SEARCA and UPLBFI were commissioned by DA to strengthen its capacity in providing highly responsive and climate resilient agriculture and fishery services through AMIA.

Developed by Dr. Rogel Mari D. Sese, one of only three astrophysicists in the Philippines, the UAVs were outputs of the project's disaster



The AMIA drones were turned over to DA officials by Dr. Lope B. Santos III (fourth from right), Program Specialist and Officer-in-Charge at SEARCA's Project Development and Technical Services; Dr. Rex Victor O. Cruz (fourth from left), Acting AMIA Project Leader; and the UAVs' developer Dr. Rogel Mari D. Sese (third from right).

risk reduction management sub-component on use of drones in disaster assessment and other agricultural purposes of AMIA.

The DA is expected to use the drones in damage assessment, and field and project monitoring. (Report from GMCLagrimas)

## Study finds AIS vital to agri productivity growth in ASEAN

NAY PYI TAW, Myanmar—SEARCA presented the results of the study commissioned by the Organisation for Economic Co-operation and Development (OECD) titled “Overview and Assessment of Agricultural Innovation Systems in ASEAN” during the *OECD-FAO-ASEAN Regional Conference on Policies to Enable Food Security, Agricultural Productivity and Improved Nutrition* held on 14-15 June 2016 in this city.

The assessment employed OECD’s four-dimension framework, which consists of the following: governance of agricultural innovation systems (AIS), public and private investments in agricultural innovations, facilitation of knowledge diffusion through education and agricultural extension services, and cross-country supply of agricultural innovations.

Mr. Bernie Justimbaste, principal investigator for the study, discussed the role of AIS in finding new ways to address key challenges and opportunities

brought about by the changing agricultural landscape in the region.

He underscored the observation that AIS is a relatively new concept for many ASEAN Member States (AMS) and that its adoption will require a “whole-of-government approach” and strategic alliances with the private sector.

Mr. Justimbaste shared some of the major findings of the study, as follows:

- There is typical fragmentation in institutional arrangements for innovations in most AMS, which limits significantly the connection between research and demand.
- A number of AMS have valuable experiences that have seriously tackled this fragmentation challenge.
- Government has been the predominant funder of agricultural R&D, but some administrations are beginning to seriously consider more innovative funding mechanisms.

- There is a need to transform public and private extension and advisory services as well as agricultural education and training to a more demand-driven system.
- There are a number of existing networks, consortia, and platforms in ASEAN that can be tapped for cross-border technology transfer and for promoting participation of AMS in addressing transnational innovation issues.

Some 70 high-level officials from ASEAN and international development organizations as well as civil society organizations, academe, and private sector representatives shared views and research outputs to improve the evidence base available to AMS policymakers.

The participants were also provided with a suite of research outputs, including the SEARCA study on AIS, which they can use to develop policies that will enhance food security, agricultural productivity, and nutrition in their respective countries. (BMBurgos)

## Myanmar reorganizes agri ministry, crafts enabling policy framework

NAY PYI TAW, Myanmar—The former Ministry of Agriculture and Irrigation (MOAI) has been reorganized under the new Myanmar democratic government into the Ministry of Agriculture, Livestock and Irrigation (MOALI). MOALI is a consolidation of the MOAI, Ministry of Livestock, Fisheries and Rural Development, and Ministry of Cooperatives.

Speaking at the *OECD Seminar on Building Comprehensive Policy Framework for Sustainable Agriculture Development and Food Security in Myanmar* held on 13 June 2016 at Hotel Amara, the Union Minister for MOALI, H.E. Dr. Aung Thu stressed the importance of “developing liberal, more flexible, and more outward-looking policies for short-term and long-term development of the country’s agriculture sector.” As an example, Dr. Aung Thu cited the Myanmar Rice Sector Development Strategy 2016 to 2030 (MRSDS), which the ministry developed in cooperation with the International Rice Research Institute (IRRI).

### Evidence-guided policy framework

The OECD seminar aimed to present evidences that will guide the new government in crafting a comprehensive policy framework for sustainable agriculture development and food security in the country. It was chaired by Dr. Tin Htut, MOALI Permanent Secretary and former Rector of Yezin Agricultural University (YAU).

The seminar featured relevant and forward-looking, evidence-based studies of OECD, including the agricultural innovations system study commissioned to SEARCA, MOALI, YAU, Yangon University of Economics, the World vBank, and the United Nations-Food and Agriculture Organization (UN-FAO).

### New agricultural strategy

Mr. Tin Htut Oo, Chairman of Myanmar’s National Economic and Social Advisory Council (NESAC), discussed the white paper on *A New Vision and Agricultural Strategy for Myanmar: From Rice Bowl to Food Basket*. The new vision envisages agribusiness supply chains that are driven by the market, led by small farmers and small and medium enterprises (SMEs), spurred by larger domestic and foreign firms, and shaped by a three-pillar strategy of open decision-making by small farmers who produce various agri-food products, and supported by responsive input markets as well as reliable and efficient output markets and value chains.

### Support to rice sector development

SEARCA and IRRI have agreed to collaborate to provide technical assistance to MOALI in the formulation of a human resource development program in support of MRSDS.



Dr. Bessie Burgos (center) of SEARCA and Dr. Romy Labios (right) of IRRI with MOALI Deputy Minister Dr. Tun Winn.

In line with this, Dr. Bessie Burgos, SEARCA Program Head for Research and Development, and Dr. Romy Labios, IRRI Agronomist-Consultant in Myanmar, paid a courtesy call to Dr. Tun Winn, MOALI Deputy Minister, and Dr. Ye Tint Tun, Director General of the Department of Agriculture, on 14 June 2016. They discussed plans for the joint *MOALI-SEARCA-IRRI Workshop on Human Resource Development Program for Myanmar’s Rice Sector Development Strategy: 2016-2030*. The proposed workshop is intended to identify strategies and specific interventions that will ensure the supply of human resources needed to implement and realize the goals of the MRSDS. (Report from BMBurgos)

## SEARCA brings FSC short course to SKU

SAVANNAKHET, Lao PDR—SEARCA organized a Germany-supported short course for faculty members and researchers of Savannakhet University (SKU), one of four universities the Center supports under its Institutional Development Assistance (IDA) Program. SKU is one of the country's newest universities.

Annually, SEARCA organizes a series of short courses for the Food Security Center (FSC) project of Germany's University of Hohenheim as part of its support as strategic partner of FSC. The *Short Course on Utilization of Indigenous Crops to Strengthen Food Security* held on 6-10 June 2016 was the second FSC short course that SEARCA brought to a university it supports under the IDA Program.

The IDA intends to empower and equip strategically located universities with the necessary resources to cater to the demands for human resources required to boost economic development in the region. In SKU's case, it is well situated to serve the Savannakhet, Khammouane, and Bolikhamxay provinces—all of which are along the East-West economic corridor envisaged to link Vietnam and Myanmar through Lao PDR and Thailand.

Twenty-six SKU junior faculty members and researchers participated in the course. They learned the fundamentals of tropical crop diversity, the value of plant genetic resources, ethnobotany, plant diversity, basic taxonomy, and the fundamentals of plant collection. They also had a session on fish diversity in the Mekong River, which passes through six countries from China through Myanmar, Lao PDR, Thailand, and Cambodia to Vietnam.

The resource persons were from Kasetsart University (KU) in Thailand, another strategic partner of the FSC. The team of lecturers was led by Dr. Yingyong Paisooksantivatana, Professor Emeritus, Department of Horticulture, Faculty of Agriculture. With him were Dr. Hathairat Chokthaweepanich and Dr. Piyamas Phongkaew, both of the Faculty of Natural Resources and Agro-Industry, Department of Agriculture and Resources at the KU Chulermphrakiat Sakon campus in Nakhon Province.



Participants, lecturers, and organizers of the FSC short course.

The lectures underscored how recent events showed that extreme weather conditions wreak havoc on agriculture and how climate change poses a formidable challenge to food security. Dr. Yingyong stressed that it is very important to diversify crops using under-exploited, unexplored or old cultivars because agricultural biodiversity would be a key to the survival of mankind.

The course included a visit to a forest near SKU's new campus to enable the participants to appreciate the diversity of organisms, classify them according to their ecological roles, and observe the plant community.

The short course was jointly funded by SEARCA and the FSC, which is part of the German Academic Exchange Service (DAAD) program "Exceed" supported by DAAD and the German Federal Ministry for Economic Cooperation and Development (BMZ). (LLDDomingo with report from BPSaez)



Field visit of the course participants to a nearby forest to observe the natural environment in which biodiversity occurs.

## Upland scholarship project holds final monitoring visits

BANGKOK, Thailand—SEARCA conducted monitoring visits to study posts of scholars supported under by the International Development Research Centre (IDRC) of Canada and implemented by SEARCA under the IDRC-SEARCA Scholarship for Upland Agriculture and Food Security. Kasetsart University (KU), Chiang Mai University (CMU), and Khon Kaen University (KKU) serve as study posts of the scholars.

At present, the project has five ongoing scholars at CMU, eight at KKU, and one at KU. The project also has 12 ongoing scholars at the University of the Philippines Los Baños.

Dr. Maria Cristeta N. Cuaresma, SEARCA Program Head for Graduate Education and Institutional Development, conducted the monitoring visits on 16-18 May 2016. The coordinating visit was a core activity of the IDRC project that served as a proactive feedback mechanism between and among the scholars, university coordinators, and SEARCA.

In meetings with university coordinators, she inquired about the scholars' academic progress and discussed other scholarship-related concerns. She also thanked them for hosting the project's scholars and expressed optimism for future collaborations.

Dr. Cuaresma also conferred with the scholars at each study post. She encouraged them to complete their programs on time and introduced some of the Center's grants and training offerings. She also urged them to connect with the SEARCA alumni association in their respective countries once they graduate and take an active role.

The five-year fellowship project, which awarded 53 master's degree scholarships to nationals of Cambodia, Lao PDR, Myanmar, and Vietnam is expected to end in February 2017. (ECAsilo)

## SEARCA project injects climate change, nutrition in school curricula

A SEARCA action research program paved the way for integration of the concepts of organic agriculture, nutrition, and climate change in the Philippine Department of Education (DepEd) curricula for Grade 4 of five elementary schools and Grade 7 in one high school in Laguna province.

The integration was carried out by 36 heads and teachers of the six schools involved in SEARCA's *Participatory Action Research on School and Community-based Food and Nutrition Program for Literacy, Poverty Reduction, and Sustainable Development*.

The participating schools are Cabuyao Central School in Cabuyao, San Andres Elementary School in Alaminos, Crisanto Guysayko Memorial Elementary School in Nagcarlan, Majayjay Elementary School in Majayjay, Labuin Elementary School in Pila, and Pedro Guevarra Memorial National High School in Sta. Cruz.

One goal of the program is to increase knowledge and improve skills of teachers and students on food production and nutrition through experiential learning activities that instill the importance of agriculture, environmental concerns, and use of locally adapted green technologies.



Writeshop participants during field visit to IIRR

In a writeshop organized by SEARCA last 13 May, Grades 4 and 7 teachers of mathematics, English, science, *Edukasyong Pantahanan at Pangkabuhayan* (EPP), and technology and livelihood education (TLE) integrated the concepts of organic agriculture, nutrition, and climate change in the lesson plans of said subjects under the current Department of Education (DepEd) curricula for Grades 4 and 7.

Prior to enhancing the lesson plans, the writeshop participants reviewed the concepts of organic agriculture and nutrition. They also got an overview of climate change implications for nutrition. They were also given a lecture on bio-intensive gardening techniques during a field visit to the crop museum of the International Institute of Rural Reconstruction (IIRR) in Silang, Cavite where they were also apprised on IIRR's School Nutrition Program in Cavite.

Teachers who taught the same subjects were grouped together to work on integrating the concepts and presented their enhanced lesson plans using "demo teaching" method.

The target number of enhanced lesson plans as well as the timeline of their completion, processing, and endorsement to DepEd were outlined in an action plan that the participating teachers and SEARCA agreed on. The teachers planned to pilot the enhanced lesson plans when classes open in July 2016.

Facilitators of the workshop included Dr. Blesilda Calub of the University of the Philippines Los Baños, who leads the action research; Mr. Lamberto Perolina of DepEd Laguna; and the principals of the participating schools. (Report from AGCVallez)

## Seed fund supports sustainable beekeeping and agroforestry projects

A project on stingless bees culture and another on smallholder agroforestry are being supported under SEARCA's Seed Fund for Research and Training (SFRT), an annual competitive grants program. Both projects are demonstrating and refining sustainable livelihood options for rural communities in the Philippines.

One of the projects is titled *Community-Based Approach to Sustainable Utilization, Management and Development of Beekeeping in Sorsogon*. The other is titled *Scaling-Up Agroforestry Promotion for Sustainable Development of Selected Smallholder Farmers in the Philippines*. The projects were visited by SEARCA's Research and Development Department (RDD) staff to monitor their progress.

### Stingless bee culture

Dr. Maria Dulce J. Mostoles, professor at the Central Bicol State University of Agriculture (CBSUA) and leader of the stingless bees project, gave the monitoring team a tour of three

privately owned small-scale bee farms practicing meliponiculture in the towns of Casiguran and Bulusan on 17-19 April 2016.

She emphasized the importance of proper beekeeping to ensure sustainability of stingless bee populations and the ecosystem in general. She said the project uncovered issues, challenges, and prospects in the establishment of community-level meliponiaries, a beekeeping technology using stingless bees.

The project aims to appraise the community's ethnological/meliponicultural practices, map and inventory the stingless bee population at both barangay and municipal levels, and enhance the roles of major players in establishing community-level meliponiaries.

### Smallholder agroforestry

The monitoring team visited the SFRT-funded agroforestry project Barangay Concepcion Banahaw in Sariaya, Quezon on 25 April 2016. Led



A bee farm owner explains cultural management practices of stingless bees in Casiguran, Sorsogon.

by Dr. Reynaldo A. Comia, Associate Professor at the University of the Philippines Los Baños-Institute of Agroforestry, the project showcases how farmers can integrate different fruit trees

[Seed fund supports/ to page 12](#)

## SEARCA joins launch of global ecosystem-based adaptation program

BERLIN, Germany—SEARCA joined 21 countries and nine international organizations and institutions at the launch of the Global Ecosystem-based Adaptation (EbA) Community of Practice (CoP) on 16 June 2016. SEARCA was represented by Dr. Lope B. Santos III, Program Specialist and Officer in Charge of the Center's Project Development and Technical Services (PDS).

The countries represented were Brazil, Canada, Colombia, Ecuador, Germany, Grenada, India, Indonesia, Kazakhstan, Kyrgyzstan, Mali, Mexico, the Netherlands, Peru, the Philippines, South Africa, Thailand, United Kingdom, United States, and Vietnam.

The launch was led by Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, on behalf of the German Federal Ministry for Environment, Nature Conservation, Building and Nuclear Safety. The other international organizations that participated in the activity were the United Nations-Food and Agriculture Organization (UN-FAO), UN Environmental Program-World Conservation Monitoring Center (UNEP-WCMC), International Union for the Conservation of Nature (IUCN), Conservation International (CI), International Institute for Environment and Development (IIED), International Institute for Sustainable Development (IISD), Wetlands International (WI), World Resources Institute (WRI), and SEARCA.



Participants of the International EbA Community of Practice Workshop visit a site showcasing EbA best practice with the green roof, solar panel, and water harvesting facility. This system is practiced in other communities in Germany including high-end urban property development.

The EbA-CoP approach is one of the CoPs adopted in the Paris Agreement on Climate Change in December 2015.

The approach basically focuses on the use of ecosystems and biodiversity services as part of an overall strategy to help people adapt to the adverse impact of climate change. Ecosystem-based adaptation helps reduce people's vulnerability to climate change through the sustainable management of natural resources and conservation of ecosystems, and using them purposely.

In the Philippines, the EbA concept is part of the commitment of the Department of Environment and Natural Resources (DENR) to the Paris Agreement or UN Framework Convention on Climate Change on its inclusion in the naturally determined contributions as among the climate change adaptation priority issues that will address ecosystem resilience and ecological integrity.

The Philippine delegation shared experiences on various programs covering ridge-to-reef

(mountain-to-sea) approach, greenhouse gas inventory, mainstreaming climate resilience and green growth planning, sector vulnerability and risk assessment, and natural resources accounting and valuation. All these factors are relevant to ecosystem-based adaptation.

The entry points, tools and methods, and evidences for EbA adopted by the CoP were a product of a four-day workshop from 12 to 16 June 2016. It was followed by a training on monitoring and evaluation of adaptation and another on ecosystem services assessment and valuation on 17 June 2016.

The delegates from the Philippines were Alexis Lapiz, Eco-Town Program Officer of the Climate Change Commission; Elizabeth Bardojo, Environment Planner/Geographic Information System Specialist of the Housing and Land Use Regulatory Board-Southern Tagalog; Dolores Nuevas, GIZ-Philippines Senior Adviser; and Ma. Gerarda Asuncion Merilo, DENR-Environmental Management Bureau-Climate Change Office. (Report from LBSantos)

## Gaps between community forestry policy and practice need study

SIEM REAP, Cambodia—The Department of Forest and Community Forestry of Cambodia's Ministry of Agriculture, Forestry and Fisheries (MAFF) proposes to improve the implementation of community forestry (CF) in the country by looking at the gaps between policy and practice through case studies in the provinces of Kampot and Kampong Thom. The end view is to harmonize laws and programs supporting CF and advance CF-related bills and policies to push CF development.

The proposal was crafted during a Project Development Assistance (PDA) workshop conducted by the SEARCA-implemented, Swiss Agency for Development and Cooperation (SDC)-funded ASEAN Social Forestry Network (ASFN)



Participants and organizers of the Project Development Assistance Workshop held on 25-27 April 2016 in Siem Reap, Cambodia.

Strategic Response Fund (ASRF) in Siem Reap on 25-27 April 2016. It was the second PDA workshop conducted for the extension phase of the ASRF, which allocated another five slots for proposals generated under this scheme.

The PDA workshops aimed to assist ASEAN Member States (AMS) in developing project proposals that would respond to the needs of

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## Snapshots



**SEARCA BIDS FAREWELL TO DEPED CHIEF.** Br. Armin A. Luistro FSC (third from right) received institutional tokens from Dr. Gil C. Saguiguit, Jr. (third from left), SEARCA Director, during a dinner reception that SEARCA tendered in his honor on 24 June 2016 in Makati City, Philippines. Also in the photo are other SEARCA staff (from left) Ms. Adoracion T. Robles, Unit Head for Management Services; and Executive Coordinator, Office of the Director; Dr. Maria Celeste H. Cadiz, Program Head for Knowledge Management; Dr. Bessie M. Burgos, Program Head for Research and Development; and Mr. Elmer G. Pandanan, Communications Associate.



**BT EGGPLANT CHAMPIONS.** Dr. Saguiguit (left), SEARCA Director, presents a token to Dr. Gous Pada Das, Country Coordinator of the Feed the Future South Asia Eggplant Improvement Partnership-Bangladesh, as Dr. ASM Mahbubur Rahman Khan (center), Chief Scientific Officer and Head of the On-Farm Research Division of the Bangladesh Agricultural Research Institute (BARI), looks on. The Bangladeshi officials visited SEARCA on 28 April 2016 to learn more about the Center's programs and activities. They are Bt brinjal (eggplant) collaborators of the SEARCA Biotechnology Information Center (BIC).



**ALUMNA RECONNECTS WITH SEARCA.** Dr. Ir. Sukendah (right), Dean, and Prof. Akhmad Fauzim Head of Institution for Research and Community Services, both of the University of Pembangunan Nasional Veteran Jawa Timur, visited SEARCA on 25 May 2016 for a briefing on the Center's programs and activities and to discuss areas for future collaboration. Dr. Sukendah was a two-time SEARCA scholar who earned her MS in plant genetic resources and management from the University of the Philippines Los Baños (UPLB) in 2001 and her PhD in agronomy from Institut Pertanian Bogor (IPB) in 2009.



**STRETCHING THE COLLABORATION.** Dr. Chamnian Yosraj (center), President of Maejo University (MJU), Thailand, paid a courtesy visit to Dr. Saguiguit (left) on 24 June 2016 to discuss areas of continued collaboration between MJU and SEARCA. MJU officials who accompanied Dr. Chamnian included Dr. Weerapon Thongma (right), Vice-President for Student Development and Alumni Relations, as well as (not in photo) Dr. Ratchupong Tomwattanasilp, International Affairs Officer, and Dr. Winitra Leelapattana, Lecturer the School of Tourism Development.

### Gaps between community/ from page 8

ASFN leaders and focal points in addressing emerging issues related to social forestry in their respective countries. The PDA is also intended to identify issues and determine priority interventions in community forestry (CF) or social forestry (SF) that will help address them.

CF Management was introduced in Cambodia in the mid-1990s through many pilot projects supported by the government as well as international and national organizations. Since then, various policies and regulations were developed and are now being implemented, including the 2010 National Forestry Program (NFP) consisting of six programs, which include CF.

The three main activities under CF are: CF identification and formalization; community, institutional, and livelihood development; and CF development support services. These policies and regulations support and recognize the rights

of local communities living in or near forest areas, particularly in the management, protection, and use of forests in a sustainable manner.

While policies and regulations are intended to offer stakeholders a standardized procedure for CF development to adopt and guide their activities, there are some gaps when these are put in practice. Experiences from the past show the need to harmonize laws, policies, and programs supporting CF to avoid different interpretations by practitioners.

It is also important to make sure that policies and legislations reflect realities on the ground during implementation.

Moreover, exploring opportunities for further advancing CF-related policies and legislations should be pursued so that future CF development will realize its promised goals and overcome challenges.

Cambodia's proposed study will endeavor to provide learnings, insights, and recommendations on these issues and bring them to the attention of key stakeholders, including policymakers.

Participants of the workshop came from agencies under MAFF, namely: Department of Forest and Community Forestry, Forestry Administration, and representatives from NTFP-EP, RECOFTC, and from the Learning Institute in Cambodia.

Mr. Long Ratanakoma, the ASFN Focal Point for Cambodia, provided the context for the workshop with his presentation of the state of CF in Cambodia.

The participants expressed their thanks to SEARCA for giving them this rare opportunity to come together to discuss important issues confronting CF in Cambodia and agree on an action that they could implement. (Report from AMLlecciones)

# 36 SEARCA scholars complete graduate studies

At the end of academic year 2015/2016, 32 SEARCA scholars from eight countries completed their respective study programs.

Of the 36 graduates, 20 obtained their master's degree, while the rest earned their PhD. Among them are 11 scholars under the *Upland Agriculture Fellowships Project* supported by the International Development Research Centre (IDRC) of Canada, one scholar under the Universiti Putra Malaysia (UPM)-SEARCA Scholarship, and seven SEARCA PhD research scholars.

Twenty-four of the completed scholars studied at the University of the Philippines Los Baños (UPLB), while three graduated from Chiang Mai University (CMU) in Thailand and two each at UPM and Kasetsart University (KU) and Khon Kaen University (KKU), both in Thailand. One scholar each earned their graduate degree from Institut Pertanian Bogor (IPB) and Universitas Gadjah Mada (UGM), both in Indonesia, and the University of the Philippines Diliman (UPD).

Mr. Micael Soares Dos Santos Martins, a Timorese, garnered the Best Thesis Award from the UPLB College of Public Affairs and Development (CPAf) for his research titled "Community Participation in Rice Security Programs in Cailaco and Maliana Sub-Districts, Timor-Leste."

"Do not sit on your degrees, but use it to help improve your country and the region," Dr. Gil C. Saguiguit, Jr., SEARCA Director, urged the graduate scholars during the testimonial luncheon that SEARCA tendered in their honor on 23 June 2016, at the SEARCA headquarters.

"Graduate school is both a privilege and a challenge," Ms. Saranya Sawangphop, a Thai who completed MS Entomology at UPLB, stressed in her message during the luncheon.

For his part, Dr. Carlito de Araujo Mali Code, a Timorese who earned his PhD in Animal Science, said "SEARCA was able to help provide what I needed to survive graduate school, and I will be forever grateful for it."

The new SEARCA alumni, the title of their thesis/dissertation, and their study post and degree program are as follows:

## CAMBODIA (4)

- Ms. Chheun Sreyneang, "The Cassava Marketing in Pailin, Cambodia," UPLB (MS, agricultural economics)
- Mr. Nget Raby, "Drought Tolerance and Nitrogen Use Efficiency of Upland Rice (*Oryza sativa* L.) Genotypes Grown Under Varying

Water and Nitrogen Regimes," UPLB (MS, agronomy)

- Ms. Thoung Sodany, "Factors Related to Agricultural Land Use of Smallholder Farmers in Ouheng, Cambodia," KKU (MS, rural development management)
- Mr. Ung Putheany, "Effects of Varying Levels of Dietary Fiber Fractions on Energy Value of Feeds, Nutrient Digestibility and Growth Performance in Broilers and Pigs," UPLB (MS, animal science)

## INDONESIA (4)

- Ms. Deasy Fitriati, "Analysis of Postharvest Machinery Using the Analytical Hierarchy Process (AHP) to Reduce Quantitative Postharvest Losses of Maize (*Zea mays* L.)," IPB (MS, postharvest technology)
- Ms. Renny Eka Putri, "Instrumentation of a Rice Combine Harvester for Instantaneous Yield Monitoring During Harvesting," UPLB (PhD, agricultural mechanization and automation)
- Mr. Bimo Budi Santoso, "Isolation, Characterization, and Structural Elucidation of Atimicrobial Compounds from the Bark of *Drimysarkensis gibbs*," UPLB (PhD, agricultural chemistry)
- Ms. Hari Sulistiyowati, "Appraising Ecological Value of Tropical Forest Ecosystem Carbon Pools at MeruBetiri National Park, Indonesia," UPLB (PhD, botany)

## LAO PDR (4)

- Mr. Bouavonh Biachampah, "Impact and Risk Assessment of Land Use Change on Ecosystem Services and Livelihood Security in Saysathan District, Sayaboury Province, Lao PDR," CMU (MS, agricultural systems management)
- Mr. Lyfong Yalao, "Effects of Supplementation with Guinea Grass Silage on Growth Performance of Lao Native Cattle Fed Rice Straw as Basal Diet," CMU (MS, animal science)
- Mr. Nouyang, "Growth and Productivity of *Zea mays* L. and *Arachis hypogaea* L. Intercrops Under Varying Water Management and Plant Spacing," UPLB (MS, agronomy)
- Mr. Phomma Thammavong, "Impacts of Flash Flood on Farmers' Livelihoods in Upland Areas: A Case Study of Rice Production in Nathen Village, Kasi District, Vientiane Province, Lao PDR," KKU (MS, rural development management)

## MYANMAR (3)

- Ms. Khin Thida Khaing, "Effect of Cutting Length of Whole Crop Corn Silage on Quality and Rumen Fermentation in Goats," UPM (PhD, animal science)
- Ms. Phyu Lay Myint, "Paw San Rice Adoption in Myanmar," KU (MS, agricultural and resource economics)



Dr. Chamnian Yosraj (SEARCA alumnus, MS and PhD in animal science, UPLB) addresses the graduating class of 2016 during UPLB graduate school recognition rites.

- Ms. Myat Moe Hlaing, "Root Characteristics of Rice (*Oryza sativa* L.) Associated with Tolerance to Flooding," UPLB (PhD, botany)

## PHILIPPINES (9)

- Ms. Merites M. Buot, "Wellbeing of Disaster-prone Communities in the Philippines," UPLB (PhD, community development)
- Mr. Engelbert D. Lalicán, "Assessment of Ecosystem Services of Agroforestry Systems in Selected Community-based Forest Management (CBFM) Areas in Laguna, Philippines," UPLB (PhD, forest resource management)
- Ms. Leila D. Landicho, "Development Pathways of Sustainable Upland Farming Communities in the Philippines," UPLB (PhD, community development)
- Ms. Hannie T. Martin, "Comparison of FAO Procedure and Indigenous Knowledge-based Approach to Land Use Selection: A Case Study of Abulog-Apayao Watershed," UPLB (MS, forest resource management)
- Mr. Bryan Rey R. Oliveros, "Use of Ozone as a Wash Water Additive for Sanitizing Organic Produce," UPLB (MS, microbiology)
- Mr. Joseph Angelus F. Palomar, "Diversity, Physiological and Morphological Attributes of Indigenous Tree Species for Rehabilitation, Climate Change Adaptation and Mitigation of Upper Marikina River Basin Protected Landscape," UPLB (PhD, forestry)
- Mr. Anatolio N. Polinar, "Early Growth Performance and Carbon Sequestration Potential of Selected Tree Species Inoculated with Mycorrhizae in Degraded Grassland in

36 SEARCA scholars/ to page 11

## Phi calamansi growers assisted in strategic planning

CALAPAN CITY, Philippines—A workshop was held to help calamansi growers in Victoria, Oriental Mindoro prioritize their strategies to improve their yield and increase their income.

The PRAAP workshop was jointly organized by SEARCA, Mindoro State College of Agriculture and Technology (MinSCAT), and the local government unit of Victoria, Oriental Mindoro, as part of the Inclusive and Sustainable Agricultural and Rural Development (ISARD) pilot project titled *Revitalizing the Calamansi Industry in Victoria, Oriental Mindoro through Strengthening Linkages among Farmers, Local Government Unit, National Government Agencies, State Universities and Colleges, Civil Society Organizations, and the Private Sector*.

The *Participatory Rural Appraisal and Action Planning (PRAAP) Workshop* on 4-7 April 2016 was attended by 30 farmer-beneficiaries and institutional stakeholders involved in the Center's Inclusive and Sustainable Agricultural and Rural Development (ISARD) project on revitalizing the calamansi industry in Victoria, Oriental Mindoro.

The workshop aimed to profile and characterize the calamansi growers in Victoria, Oriental Mindoro; determine their current production



Mr. Henry M. Custodio (standing), SEARCA Research and Development Specialist, provides an overview of the ISARD piloting program and of the four-day workshop.

and marketing practices; and identify the major challenges and opportunities they face.

Dr. Miriam R. Nguyen and Dr. Evangeline C. Sulabo of the University of the Philippines Los Baños-College of Public Affairs and Development (UPLB-CPAf), served as resource persons during the workshop.

On the first day, Dr. Nguyen gave an overview of the national and regional calamansi industry

and conducted the rapid appraisal. The lectures and exercises on data organization and analysis, project monitoring and evaluation, and stakeholder analysis were undertaken on the second day.

Dr. Sulabo facilitated the workshop on the third day, and gave lectures and exercises on problem analysis as well as identification and prioritization of interventions. Preparation of the logical framework and action planning were done on the last day. (Report from AMReglos)

### 36 SEARCA scholars/ from page 10

Southern Leyte, Philippines," UPLB (PhD, forestry)

- Ms. Elenita L. Racelis, Integrated Green House Gas Accounting Model for Environmentally Critical Projects: The Case of the Padcal Mining Project in Benguet Province," UPLB (PhD, forest resource management)
- Mr. Victor S. Ticzon, "Application of Remote Sensing in Estimating Juvenile Reef Fish Abundance," UPD (PhD, marine science)

#### THAILAND (4)

- Ms. Chalinee Somthawin, "Community Enterprise Development as a Strategy Towards Self-Reliance Among Agricultural Farmers in Surin Province, Thailand," UPLB (MS, agricultural extension)
- Ms. Saranya Sawangphop, "Comparative Diversity and Composition of Xyleborini Ambrosia Beetles (coleoptera: curculionidae: scolytinae) in Rubber Plantation and Secondary Forest, Southern Thailand," UPLB (MS, entomology)
- Mr. Taweesak Viyachai, "Development of Cut Chrysanthemum Production in Substrate Culture Under Restricted Root Volume," UPM (PhD, horticulture)

- Mr. Tinnaprach Wongchittham, "Extension Support System for Community Enterprises of Garcinia-based Products in Phuket, Thailand," UPLB (MS, extension education)

#### TIMOR-LESTE (4)

- Mr. Antonio Joao Da Costa, "Land Evaluation as a Basis for Agriculture Food Crops Development: Case in Raumoco Lautem, Timor-Leste," UGM (PhD, agricultural science)
- Mr. Carlito De Araujo Mali Code, "Bio-Economic Model of Rainfed Rice-Bali Cattle Farming System in Maliana, Bobonaro, Timor-Leste," UPLB (PhD, animal science)
- Mr. Delfim Da Costa, "Effects of Local Farming Practices on Soil Degradation in Raumoco Watershed in Timor-Leste," UPLB (MS, environmental science)
- Mr. Micael Soares Dos Santos Martins, "Community Participation in Rice Security Programs in Callaco and Maliana Sub-Districts, Timor-Leste," UPLB (MS, community development)

#### VIETNAM (4)

- Mr. Nguyen Van Thanh, "Banana Farmers' Attitudes and Behaviors Towards Sustainable

Agriculture in the Uplands, Vietnam," KU (MS, sustainable agriculture)

- Mr. Nguyen Xuan Huu, "Willingness to Pay of Households for Solid Waste Management Improvement in Tu Ky Town, Hai Duong City, Vietnam," UPLB (MS, environmental science)
- Mr. Tran Quang Hung, "Utilization of Corn Meal as Black Carp (*Mylopharyngodon piceus*) Diets in Northern Upland Region of Vietnam," CMU (MS, animal science)
- Mr. Vu Xuan Truong, "Impact of Farmers Field School on Upland Rice Production in Quezon Province, Philippines," UPLB (MS, agricultural economics)

The SEARCA graduate scholarship is open to nationals of SEAMEO member countries, namely: Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, the Philippines, Singapore, Thailand, Timor-Leste, and Vietnam to pursue graduate education in agriculture and related fields. Since it was launched in AY 1968/1969, the program has granted 1,618 graduate scholarships to Southeast Asians to date. (LLDDomingo)

## SEARCA Director promotes ISARD at graduation rites

BATAAC, Philippines—Dr. Gil C. Saguiguit, Jr., SEARCA Director, underscored the value of education and ways to use it to open doors of opportunities in his address to more than 2,000 graduates as the guest of honor and commencement speaker at the 38th Commencement Exercises of Mariano Marcos State University (MMSU) on 5 April 2016.

Dr. Saguiguit emphasized to the graduates the importance of agriculture in food security and poverty alleviation in the country and the rest of Southeast Asia. He explained why SEARCA focuses on inclusive and sustainable agricultural and rural development (ISARD) amid the issues, problems, and challenges faced by the agriculture sector which should contribute more to the country's economy and overall development. He added that as MMSU is a premier university for agriculture and fisheries, it plays a significant role in producing the needed manpower in the sector.



Dr. Gil C. Saguiguit, Jr. (inset), SEARCA Director, delivers his speech at the 38th Commencement Exercises of Mariano Marcos State University (MMSU) on 5 April 2016. (Photo courtesy of MMSU)

SEARCA and MMSU had partnered on a recently concluded project titled *Production of Organic Feeds for Native Chicken: A Pilot Corn/Sorghum + Cowpea Intercropping Scheme Integrated with Village Milling and Native Chicken Production*. The project was funded by the Philippine Department of Agriculture-Bureau of Agricultural Research (DA-BAR).

MMSU was a beneficiary of SEARCA's capacity building initiatives with nine faculty members awarded SEARCA scholarships to pursue graduate degrees. These SEARCA alumni now occupy key positions in the administration, teaching, research, and extension programs of MMSU. (LLDDomingo)

## Review of community forestry implementation in Vietnam pushed

HOA BINH, Vietnam—The Vietnam Administration of Forestry (VNFOREST) developed a proposal to review the implementation of community forestry in Vietnam during the Project Development Assistance (PDA) workshop held on 12-14 April 2016.

The workshop was facilitated by SEARCA under the ASEAN Social Forestry Network (ASFN) Strategic Response Fund (ASRF), which it implements for the ASEAN-Swiss Partnership on Social Forestry and Climate Change (ASFCC) Phase 3 with funding from the Swiss Agency for Development and Cooperation (SDC).

According to the Bangkok-based Regional Community Forestry Training Center for Asia and the Pacific (RECOFTC), while there is a strong legal foundation and progress on forestland allocation, community forestry in Vietnam faces several challenges such as limited human and financial resources, and absence of a single agency that will oversee and harmonize the implementation of community forestry.

Researchers estimated that 2.8-3.5 million hectares of forestland are being managed by communities and household groups in

Vietnam and RECOFTC project that said area will increase up to 4.4 million hectares. It is against this backdrop that the proposed project was formulated, with the expectation that it will generate inputs for the revision of Vietnam's Forest Protection and Development Law (1991). Participants of the workshop were from institutions and organizations involved in community forestry in Vietnam, including VNFOREST, Vietnam University of Forestry (VFU), Vietnamese Academy of Forest Science (VAFS), Vietnamese Cooperative Union, International Centre for Research in Agroforestry (ICRAF), Hoa Binh Forest Protection Department, and Song Da Forest Protection Management Board.

They are researchers, lecturers, and directors with the common desire of pushing forward the agenda on community forestry, specifically to expand the rights and benefits of communities, and ensure that these would be integrated in the revision of Vietnam's law on forest protection and development.

The PDA workshop was supported by the ASRF grants to help the ASFN Focal Points of the ASEAN Member States develop relevant proposals that will promote social/community/village forestry in the region. Other recipient countries of the PDA workshop were Lao PDR, Malaysia, Indonesia, and Myanmar. (MAABatas)

### Seed fund supports/ from page 7

in their farms where they cultivate crops such as bitter melon or ampalaya, squash, and other vegetable crops, depending on the season. This agroforestry farming practice, according to the project team, aims to enhance the ecology and conserve biodiversity, augment the incomes of farmers, and provide them year-long food supply.

SEARCA's SFRT Program aims to provide start-up funds to researchers and scientists

in the Southeast Asian region who want to make significant contributions in research and development and knowledge dissemination but are hindered by lack of funds. It also seeks to expand SEARCA's reach in the areas of research, capacity building, and knowledge contribution on inclusive and sustainable agricultural and rural development (ISARD) in the region. (Report from MKRPunto)

# Plant biotech continues to gain ground in the Philippines

MANILA, Philippines—More than 50 representatives from the media, academe, research institutions, government, and private companies gathered on 29 April 2016 at Acacia Hotel for a media conference on the *ISAAA Brief 51: 20th Anniversary (1996 to 2015) of the Global Commercialization of Biotech Crops and Biotech Highlights in 2015*.

The International Service for the Acquisition of Agri-biotech Applications (ISAAA), a not-for-profit organization, shares the benefits of crop biotechnology to resource-poor farmers in developing countries and other stakeholders by sharing knowledge and proprietary biotech applications. ISAAA's "global knowledge sharing network and partnerships in the research and development continuum, provide a powerful combination of science-based information and appropriate technology to those who need to make informed decisions about their acceptance and use."

The report was presented by Dr. Paul S. Teng, Professor at Nanyang Technological University in Singapore and Chair of the ISAAA Board of Trustees. According to the report, 350,000 Filipino farmers planted biotech corn in 2015.

## Bt eggplant in the Philippines

In his welcome remarks, Dr. Gil C. Saguiguit, Jr., SEARCA Director, said biotechnology is frequently bombarded by claims that it is detrimental to health. Such claims led to the Philippine Supreme Court decision to stop field tests on Bt eggplant in 2015.

For his part, Dr. Eufemio T. Rasco, Jr., Academician of the National Academy of Science and Technology (NAST), said that though the Philippines was the first to develop Bt eggplant,

Filipinos may never benefit from it. He compared the Philippine case to that of Bangladesh.

"After seven years of field and greenhouse trials in various locations, Bangladesh became the first country in the world to approve the commercial planting of Bt brinjal," he said.

Bt brinjal was approved for release on 30 October 2013.

Nevertheless, Dr. Rasco said "plant biotechnology continues to gain ground globally, including in the Philippines, in spite of the fear mongering anti-biotech lobby. This is a tribute to the persistent efforts and courage of ISAAA and SEARCA to bring this technology to the poor farmers in developing countries.

He also encouraged the stakeholders to not let temporary setbacks dampen their commitment to help farmers and consumers by providing them access to technology that will not just improve the lives of farmers, but also ensure environmental protection and promote human health.

## Bangladesh experience

The highlights of the Bt brinjal project and the commercialization experience of Bangladesh were discussed by Dr. Gour Pada Das, Country Coordinator of the Feed the Future Bangladesh, and Dr. ASM Mahbubur Rahman Khan, Chief Scientific Officer of Bangladesh Agricultural Research Institute, respectively.

Dr. Das shared an analysis of published reports about Bt brinjal that sought to determine how media perceived the new crop. He explained that the media was a powerful ally in promoting the acceptance of Bt brinjal, and he shared the efforts of Feed the Future Bangladesh

in helping media practitioners understand the science.

On the other hand, Dr. Khan shared that two important stakeholders were satisfied with Bt brinjal. These are the farmers and housewives. He said farmers were interested to grow the four varieties that were approved for release, and they were rewarded with lower production cost, higher yield, and higher gross margins. Meanwhile, the housewives were happy to have healthy fruit.

## Labeling biotech crops

The open forum was moderated by Dr. Vivencio R. Mamaril, Program Director of the Philippine Department of Agriculture (DA)-Biotechnology Program Office. Labeling was one of the issues taken up, with some saying that biotech crops should be labeled as genetically modified organisms (GMOs) and that all products with ingredients that use biotech crops be appropriately labeled as well.

Dr. Das and Dr. Khan said Bangladeshi law has no such requirement. They said Bt brinjal is labeled only as "insect-free."

Dr. Randy A. Hautea, Global Coordinator and Director of ISAAA's Southeast Asia Center, said in the Philippines, biotech crops are sold in markets with labels stating they are "pesticide-free" or "insecticide-free." He explained that labels should describe the product and its traits, providing information that matters to consumers.

## Consequences of the Supreme Court ruling

Dr. Hautea was asked to comment on the Supreme Court ruling to stop field tests on Bt eggplant. He explained that the case has not been decided, and that the court has entertained all motions for reconsideration.



From left: Dr. Gil C. Saguiguit, Jr., SEARCA Director; Dr. Eufemio T. Rasco, Jr., NAST Academician; Dr. Paul S. Teng, Chair of the ISAAA Board; Dr. Gour Pada Das, Country Coordinator of the Feed the Future South Asia Eggplant Improvement Partnership-Bangladesh; Dr. ASM Mahbubur Rahman Khan, Chief Scientific Officer and Head On-Farm Research Division of the Bangladesh Agricultural Research Institute (BARI); and Dr. Randy Hautea, ISAAA Global Coordinator and SEAsia Center Director.

As a representative from the DA, Dr. Mamaril said previous approvals of other biotech crops were not being repealed, and farmers could continue planting them if they wished.

Dr. Hautea expressed hope that the Philippines would learn from the experience of Bangladesh, citing parallels between the two countries' developments in various fields of science and technology.

The event was jointly organized by SEARCA and ISAAA. (Report from MMCAVillena/SMMercado)

## 61 SE Asian TVET institutions ink agreements

MANILA, Philippines—Three frameworks of cooperation (FOCs) were signed by 61 institutions during the *Country-Level Workshop in the Philippines on Southeast Asia–Technical and Vocational Education and Training (SEA-TVET) Harmonization and Mobility* held on 3-4 May 2016 at the SEAMEO Regional Center for Educational Innovation and Technology (INNOTECH) based in Quezon City.

SEAMEO stands for Southeast Asian Ministers of Education Organization (SEAMEO), SEARCA's mother organization which was founded in 1966 to promote cooperation in education, science, and culture among Southeast Asian nations.

The workshop was attended by more than 100 policymakers and experts in TVET, directors and representatives of TVET institutions, and heads or representatives of TVET schools in Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Philippines, and Thailand.

### Collaboration in priority areas

The three FOCs represented three priority industry/study programs identified as areas of collaboration among the TVET institutions represented in the country-level workshop. These are hospitality and tourism; agriculture and fisheries; and electronics, mechatronics, and manufacturing.

The identified collaborations are primarily in benchmarking, teacher exchange, and student exchange within the three priority industry/study programs. Details of these collaborations were expounded in the FOC that each participant signed based on the industry group joined.

Policymakers have given greater attention to TVET as a form of education that responds to poverty reduction, economic recovery, and sustainable development, particularly in light of the ASEAN economic integration.

TVET has been identified as a priority area in the Southeast Asian region during consultations held in 2012 on the initiative of SEAMEO and ADB through the SEAMEO College. SEAMEO affirmed the importance of TVET in September 2014 during the Strategic Dialogue of Education Ministers (SDEM), and included it in the seven post-2015 priority areas of SEAMEO.

### Country-level workshops

The Technical Education Skills and Development Authority (TESDA) of the Philippines hosted the workshop with support from the Department of Education (DepEd). Workshop co-organizers included the SEAMEO Secretariat (SEAMES), SEAMEO Regional Center for Vocational and Technical Education and Training (VOCTECH), the Asian Development Bank (ADB) through the Japan Fund for Poverty Reduction, and SEARCA.

The Philippine workshop was the sixth among seven country-level workshops planned to collate the results from previous TVET regional meetings, and develop partnership and commitment among the participating TVET institutions, which will lead towards harmonization and internationalization. The previous country-level workshops were held in Cambodia (9-10 October 2015), Thailand (26-28 November 2015), Myanmar (4-5 December



Atty. Teodoro C. Pascua, TESDA Deputy Director General for TESD Operations, delivers his welcome remarks during the workshop's opening ceremony.

2015), Lao PDR (22-23 December 2015), and Malaysia (1-3 March 2016). The last country-level workshop will be held in Brunei Darussalam.

The country-level workshops served as platforms for establishing partnerships and networking among the participating TVET institutions from the host country and other Southeast Asian countries. They aimed to explore collaborative mechanisms, action plans, and commitments for piloting student and teacher exchanges and other joint activities as well as discuss on continuous communication and networking among involved parties. (Report from NARamos)



The workshop participants pose for a group photo.

## SEARCA DepEd-UPLB/ from page 16

proper use of measuring instruments for weight and height data, and demonstrate traditional cooking of local vegetables.

To ensure the successful implementation of the project using the participatory approach, the key players agreed on common logical and conceptual frameworks, and jointly developed the project monitoring and evaluation plans.

These accomplishments and outputs have laid the groundwork for the succeeding phases of

the project, which are the establishment and maintenance of school gardens, and post-production and value adding activities.

### SEAMEO College apprised

Dr. Gil C. Saguiguit, Jr., SEARCA Director, presented the initial project results and recommendations for the second and third phases at the Southeast Asian Ministers of Education Organization (SEAMEO) College Project Management Committee Meeting held on 30 May 2016 in Bangkok, Thailand.

The SEAMEO College, through the SEAMEO Secretariat and the Asian Development Bank (ADB), provided the financial support for the initial phase of the school and home gardens project.

All these initiatives are expected to contribute to the following outcomes: improvement in the nutritional condition and dietary habits of school-aged children, and food and nutrition security in the pilot sites in the Philippines. (Report from AGCVallez/BMBurgos/HMCustodio)

## SEARCA leads innovation platforms forum

Twenty-five government executives and agricultural professionals from seven countries joined a SEARCA-led forum-workshop that enabled them to draw up plans for capacity building to advance inclusive and sustainable agricultural and rural development (ISARD) through innovation platforms (IP), rural advisory services (RAS), and knowledge management in their R&D programs.

Titled *Innovation Platforms, Rural Advisory Services, and Knowledge Management towards ISARD*, the learning event was hosted by SEARCA on 17-19 May 2016. It aimed to enable the participants to strategically integrate IP and improve RAS and KM in their ARD research

programs and projects. At the end of the workshop, the participants have outlined how IP, RAS, and KM can be used in pilot-testing, practice learning, and networking to advance ISARD.

The participants were from Cambodia, Indonesia, Lao PDR, Myanmar, the Philippines, Timor-Leste, and Vietnam. The Filipinos are members of the teams working with SEARCA in the pilot sites of its action research titled *Piloting and Upscaling Effective Models of ISARD*.

SEARCA organized the forum-workshop in collaboration with the International Livestock Research Institute (ILRI) and the Asia Pacific Islands Network on Rural Advisory Services (APIRAS) of the Global Forum on Rural Advisory Services (GFRAS) based in Switzerland. (Report from NARamos)



Dr. Iddo Dror, Head of Capacity Development at the International Livestock Research Institute (ILRI), explains to participants a case exercise on facilitating innovation platforms.

## ARD managers focus on changing agri landscape, food security

Twenty middle managers and one senior leader in agricultural and rural development from seven Southeast Asian countries participated in the *Third Executive Forum on Food Security: Leaders in ASEAN and Agriculture Development* conducted by SEARCA on 6-10 June 2016.

The participating executives were from academic institutions and agriculture ministries in Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, the Philippines, Thailand, and Vietnam. They are envisaged to become part a community of ASEAN leaders in agriculture who are empowered with knowledge on key contemporary issues in agriculture and food security.

The forum focused on the role of agriculture in relation to four commonly expressed government goals, namely: advancing sustainable rural development, conserving natural resources and the environment, producing competitive agricultural exports, and ensuring food security for rural and urban populations.

In his remarks at the opening program, Dr. Gil C. Saguiguit, Jr., SEARCA Director, said pathways toward food security have not been easy in the face of the constant challenges of an ever increasing population, dwindling natural resource base, and worsening climatic conditions that all negatively affect the region's agriculture sector. He said these persistent problems in the region coupled with the changing ASEAN agricultural landscape demand that leaders and executives make appropriate multilateral decisions and actions.

The executive forum included lectures on leadership and learning syndicates. Its modules were as follows: New Elements in the Agriculture-Development Landscape; The ASEAN Landscape for Agriculture vis-à-vis the Global Agriculture Landscape; and New Leadership Modes.

Dr. Paul S. Teng of the National Institute of Education (NIE) at the Nanyang Technological University (NTU) who is also a SEARCA Senior Fellow, led the roster of high-caliber resource persons of the forum as its technical coordinator.

The other resource persons were Dr. David Ng Foo Seong, Associate Professor at NTU NIE; Dr. Andrew Powell, Chief Executive Officer of AsiaBioBusiness, Pte. Ltd. Singapore; Dr. Rodel D. Lasco, Philippine Coordinator of the World Agroforestry Centre (ICRAF) and Scientific Director of the Oscar M. Lopez Center for Climate

Change Adaptation and Disaster Risk Management Foundation, Inc. (OML Center); Dr. Rolando T. Dy, Professor and Executive Director, Center for Food and Agribusiness, University of Asia and the Pacific; Dr. Rhodora R. Aldemita, Senior Program Officer, International Service for the Acquisition of Agri-biotech Applications (ISAAA); Dr. Noel Magor, Head, Impact Acceleration and Training Center, International Rice Research Institute (IRRI); Dr. Larry Chee-Yoong Wong, Visiting Fellow, Institute of Strategic and International Studies (ISIS) Malaysia and Senior Advisor of Myanmar Rice Federation; Ms. Somang Yang, Senior Manager for Advocacy, CropLife Asia; Dr. Bas Bouman, Director, Global Rice Science Partnership (GRiSP) at IRRI; Mr. Martin Bettelley, Country Deputy Director, United Nations-World Food Programme (WFP)-Philippines; and Ms. Alison Eskesen, Director of Knowledge and Innovation, Grow Asia. (EPSerrano)



Participants, resource persons, and organizers of the executive forum.

# SEARCA-DepEd-UPLB school and home gardens project wraps up first phase

The *Participatory Action Research on School- and Community-based Food and Nutrition Program for Literacy, Poverty Reduction, and Sustainable Development* jointly implemented by SEARCA, the Philippine Department of Education (DepEd), and University of the Philippines Los Baños (UPLB) concluded its preliminary phase on 15 May 2016.

Following an agreed set of criteria, the DepEd-Division of Laguna Province selected one secondary school and five elementary schools in Laguna to participate in the project.

The elementary schools are Cabuyao Central School in Cabuyao, Labuin Elementary School in Pila, Crisanto Guysayko Memorial Elementary School in Nagcarlan, Mayjayjay Elementary School in Majayjay, and San Andres Elementary School in Alaminos. The sixth school involved in the project is Pedro Guevarra Memorial National High School in the Laguna capital town of Sta. Cruz.

## Planning and preparation

The schools were involved in a planning workshop and orientation of key stakeholders to validate project deliverables, develop the logical framework, identify activities, and formulate the sustainability plan.

A series of seminars and workshops were also conducted to capacitate teachers on the concepts and principles of sustainable, ecological and organic agriculture, edible landscaping, nutrition, and climate change adaptation and mitigation. The teachers' gains from these learning events were put to use in a writeshop to integrate concepts of organic agriculture, nutrition, and climate change in the lesson plans of Grades 4 and 7 in the following subject areas: English, Science, Mathematics, and *Edukasyong Pantahanan at Pangkabuhayan* (EPP) (for Grade 4) and Technology and Livelihood Education (TLE) (for Grade 7).

The existing school gardens were also assessed to observe and evaluate the condition of each garden.

In each participating school, an optimum-sized greenhouse with rainwater collection system was assembled to ensure a sustainable and continuous production of vegetable crops throughout the year.

## Project gains

Milestones of the project include the initial establishment of school gardens by installing greenhouses to serve as nursery to multiply seeds and planting materials; integration of

nutrition, organic agriculture, and climate change concepts in the DepEd elementary and high school curricula; and a study tour of the project implementation partners to the International Institute of Rural Reconstruction (IIRR) model farms that feature the bio-intensive gardening technique.

Specifically, the significant outputs of the project include six designs of school gardens measuring 100 square meters each; six action plans for the implementation and maintenance of the school gardens; garden tools, structures, and farm inputs acquired and distributed to the participating schools; and lesson plans being finalized for Grades 4 and 7 integrating nutrition, organic agriculture, and climate change concepts.

The project's action research component included a baseline study that assessed the nutritional status of children, the implementation of the School-based Feeding Program, and knowledge/training on anthropometric data collection needed by teachers.

Training on nutrition for the school gardens project was conducted to review nutrition concepts, enhance knowledge on calibration and

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Mrs. Morales demonstrates how to cook the inner core of banana.



Representatives of participating schools and the school and home gardens project staff visit the Bureau of Plant Industry's (BPI) Organic Demo Farm for Organic Seed Production.



Visit to the UPLB Edible Landscaping Garden.



Standardization exercise for height measurement of children.